

*Agency  
Approaches to  
Achieving Our  
Goals*

***Waste Minimization***

EPA's performance measures for waste minimization were designed to provide a limited set of data that reflect the nation's most important waste management program priorities. Other types of environmental program and fiscal data will be needed to maintain effective program management. EPA will work with state partners to develop a set of environmental indicators that will provide outcome measures. The following are examples of current performance measures.

- Decreases in the quantity of waste generated and toxicity of waste generated, and increases in recycling of waste.
- Reduction in municipal solid waste landfilled and combusted.
- Reduction in per capita generation of municipal solid waste to 4.3 pounds per day.

***Tribal Environmental Programs***

- In the near term, measures will include the number of tribes with environmental programs, the extent of our understanding of environmental conditions in Indian country, and which tribes have developed plans for addressing priority environmental issues.
- Once we have established a baseline for environmental conditions in Indian country, we will also measure improvements in environmental conditions.
- Number of Tribal/EPA Environmental Agreements (TEAs) completed.
- Number of environmental assessments conducted on tribal lands.
- Number and percentage of tribes with environmental programs or infrastructure that are capable of conducting environmental assessments.



**GOAL 5: Better Waste  
Management, Restoration  
of Contaminated Waste Sites,  
and Emergency Response**

**America's wastes will be stored, treated, and disposed of in ways that prevent harm to people and to the natural environment. EPA will work to clean up previously polluted sites, restoring them to uses appropriate for surrounding communities, and respond to and prevent waste-related or industrial accidents.**

**Importance of this Goal**

Improper management of wastes can lead to fires, explosions, and contamination of air, soil, and water. A frequent result of improper hazardous waste disposal is the contamination of groundwater--the source of drinking water for nearly half of all Americans. At some sites, toxic vapors from evaporating liquid wastes or chemical reactions contaminate the air. Pollutants such as metals and organic solvents can damage vegetation, endanger wildlife, and harm the health of people who live in nearby communities. Toxic and hazardous substances, including radioactive waste, deposited on land often are carried far from their source by air, groundwater, and surface water runoff into streams, lakes, and rivers where they accumulate in the sediments beneath those waters.

Management techniques for wastes include recycling, land disposal, and combustion. Different types of waste require different means of treatment and disposal--what is suitable for one waste might not be suitable for another. Decisions about cleanup must be made with community, human health, and environmental concerns in mind. EPA efforts to achieve this goal center on protecting human health and the environment by applying the fastest, most effective waste management and cleanup methods available, while involving affected communities in the decision-making process.

Cleaning up abandoned or under-used industrial land and supporting new business growth is the focus of the brownfields program. The term "brownfields" denotes abandoned, idle or under-used industrial or commercial sites where expansion or redevelopment is complicated by real or perceived environmental contamination. Over 450,000 such properties are thought to exist. Accomplishment of the brownfields objective will demonstrate that economic, environmental and social goals can be integrated such that economic growth can improve, rather than diminish, environmental quality.

## Objectives

- By 2005, EPA and its partners will reduce or control the risks to human health and the environment at over 375,000 contaminated Superfund, RCRA, UST and brownfield sites. (Total comprises 1,200 NPL and 480 non-NPL sites; 2,475 RCRA facilities; 370,000 LUST cleanups initiated or completed; and 1,500 brownfield properties.)
- By 2005, over 282,000 facilities defined by RCRA Subtitles C, D, and I, the Oil Pollution Act (OPA), the Emergency Planning and Community Right to Know Act (EPCRA), and the Clean Air Act, section 112(r), will be managed according to practices that prevent dangerous releases to the environment. (Total comprises 14,000 RCRA facilities [Subtitles C and D]; 264,000 USTs [RCRA Subtitle I]; and 4,200 oil facilities.)
- By 2005, EPA and its partners will have the capability to successfully respond to 100 percent of known emergency actions at facilities defined under the Oil Pollution Act (OPA) and the Emergency Planning and Community Right to Know Act (EPCRA), to reduce the risk to human health and the environment.

## What Will Be Accomplished

By meeting the objectives stated above, EPA will have made significant progress toward achieving our goal of promoting better waste management, restoring contaminated waste sites, and preventing waste-related or industrial accidents. EPA will continue to regulate existing waste management practices by facilities defined under RCRA, OPA, and EPCRA. By doing so, we will reduce the risk of human health and environmental exposures from hazardous waste, non-hazardous industrial waste, and municipal solid waste. Using strategies such as the "cradle-to-grave" waste management framework, the Agency will prevent the creation of "new" Superfund sites. By 2005, EPA and states will prevent dangerous releases to air, soil, and groundwater at 90% of hazardous waste, 90% of non-hazardous industrial waste, and 100% of municipal solid waste facilities in states. Human exposures will be controlled at 95% of RCRA high priority contaminated hazardous waste facilities, and releases to groundwater will be controlled at 70% of these facilities. The Agency will reduce emissions of dioxins and furans, particulate matter, and acid rain gases from hazardous waste combustion facilities by 90, 50, and 50 percent, respectively, from levels emitted in 1994. Also by 2005, EPA will add 2800 facilities to those in compliance with the spill prevention, control, and countermeasure provisions of the OPA, and 1400 additional facilities will be adequately prepared to respond to oil spills as measured by approved response plans.

Improper waste management and disposal pose a threat to those living in nearby communities and result in costly clean ups. EPA's commitment to restoring contaminated sites in partnership with states and the community will reduce greatly the effect of uncontrolled releases on local populations and sensitive environments. By 2005, we will initiate or complete clean up at 370,000 sites where groundwater or soil has been contaminated by petroleum releases from USTs. By 2005, the Agency will complete construction at 1200 sites on the NPL in a cost effective and timely manner, and complete cleanup at 480 other sites not on the NPL. Note that the new measure for removal completion is clean up with no further action necessary, rather than the traditional measure which counted stabilization rather than final clean up. Improper disposal also refers to radioactive waste, and by 2005, the amount of the nation's radioactive waste managed under

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the purview of the Atomic Energy Act and not meeting EPA's disposal standard will be reduced by 1.2 percent.

To minimize the risk to human health and the environment that occurs from emergencies such as accidental chemical releases and oil spills, EPA and its partners will increase their capabilities to prevent and respond quickly to these incidents, and leverage potentially responsible party (PRP) resources to conduct or fund responses to the maximum extent possible. Of the facilities submitting a Risk Management Plan, the Agency will work to increase the percentage of facilities that have reduced their chemical risks. Of the facilities where accidents have been investigated by EPA, we will work to increase the number of facilities that act on the investigation recommendations.

The brownfields pilot program has demonstrated that cleaning up abandoned or under-used contaminated land and supporting new business growth can have significant payoffs. Building on the pilot program, EPA will continue to combine federal, state, local and private sector efforts to restore contaminated property to economic reuse and reduce clean-up costs. By 2005, EPA will sign 300 cooperative agreements for assessments at brownfields properties, and will perform targeted site assessments in 100 cities with brownfield properties and sign 300 cooperative agreements to capitalize revolving loan funds to clean up approximately 1500 brownfield properties. In some cases, parties interested in developing such properties are concerned about the presence of environmental contamination and the attendant potential liabilities (including Federal Superfund liability). Addressing liability barriers through the brownfields program by issuance of comfort/status letters or prospective purchaser agreements in appropriate instances will facilitate sustainable redevelopment of these properties.

#### **Strategies for How It Will Be Accomplished**

- Assess more than 9,000 additional sites, including brownfields, to determine whether they meet the criteria for federal Superfund response actions.
- Prevent, minimize or mitigate significant threats at Superfund sites by conducting more than 300 removal actions per year.

- Maximize potentially responsible parties' (PRP) participation in conducting or funding response actions while promoting fairness in the enforcement process, and recover costs from PRPs when EPA expends Trust Fund monies.
- Work with the surrounding communities and the public to improve their direct involvement in waste management and cleanup.
- Enhance the role of the states and tribes in implementation of waste programs and State and tribal voluntary cleanup programs.
- Continue brownfields outreach to communities and other stakeholders. Leverage actions by other federal agencies (such as HUD), state, local, and tribal governments and private enterprise to accelerate assessment and remediation of properties. Remove liability barriers at brownfield properties by issuance of prospective purchaser agreements or comfort/status letters in appropriate instances. Provide incentives and support for voluntary cleanup programs to further the objective.
- Implement the Agency's Hazardous Waste Minimization and Combustion Strategy including the revised standards for hazardous waste incinerators and cement kilns that burn hazardous waste.
- Focus on controlling human exposures and groundwater releases at RCRA facilities designated as high priority for corrective action.
- Continue to implement RCRA regulatory program to identify and address the highest risk wastes, taking into consideration the operating costs imposed.
- Support state and tribal efforts to design and implement risk-based corrective action programs that help to reduce the backlog of UST sites with confirmed releases waiting to be addressed, and to enforce the 1998 UST leak detection and upgrade standards.
- Ensure that 400 additional facilities per year will be in compliance with the spill prevention, control and countermeasure provisions of oil pollution prevention regulations.

- Ensure that 200 additional facilities per year will be adequately prepared to respond to oil spills as measured by approved response plans prepared in compliance with statutory and regulatory requirements.
- Investigate jointly, with OSHA, major chemical accidents to determine their cause, and recommend actions for further prevention.
- Support states, tribes and Local Emergency Planning Committees in implementing chemical accident prevention programs.
- Reduce risks of radiation exposure through increased education and outreach; development of federal guidance on human exposure assessments; assistance to states and other federal agencies in radiological emergency response; and field monitoring expertise, mobile radioanalysis and dose assessment capabilities.
- The number of oil spills that EPA monitors and responds to.
- Number of USTs equipped to meet the requirements for leak detection and upgrading.
- Number of Superfund emergency time-critical and non-time-critical removal response actions, and the number of construction completions at Superfund NPL sites.
- Number of sites at which targeted site assessments for brownfield properties are completed.
- Number of brownfield properties cleaned up, and number of successful conversions of brownfield properties to economic reuse.

## Performance Measures

EPA's performance under this goal will be measured according to progress made in achieving milestones that the waste and emergency response program offices have set for the years 1999 through 2005. The performance measures were designed to provide a limited set of data which reflect the nation's most important waste management and emergency response program priorities. Since they were not intended to cover every activity or task undertaken by the states and EPA, other environmental program and fiscal data will be needed to maintain effective program management. The following are examples of performance measures:

- Number of site clean ups initiated and/or completed up where groundwater or soil is known to be contaminated by petroleum from abandoned refinery waste sites and underground storage tanks (USTs).
- Controls put in place to prevent dangerous releases to air, soil, and groundwater from waste facilities.
- Number of RCRA sites with controls in place to prevent human exposures and control groundwater releases.